**Original Article**

# Analysis Of Knowledge And Attitude Of Lung Tb Patients With Anti Tuberculosis Drug Compliance

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ABSTRACT

*Background*: Pulmonary tuberculosis is a direct infectious disease caused by the germ of Tuberculosis (Mycobacterium Tuberculosis). One of the determinants of the successful management of tuberculosis therapy is patient compliance with therapy. Non-compliance with treatment will cause failure and recurrence, resulting in resistance and continuous transmission of disease. The aim is to find out whether there is a relationship between knowledge and attitude of pulmonary tuberculosis patients with adherence to taking anti-tuberculosis medication in the Isolation Room at Mokoyurli General Hospital, Kab. Buol

The design used in this study is Cross Sectional. The population is all patients with pulmonary TB. The sample size was 41 respondents using purposive sampling technique. Independent research variables are knowledge and attitudes. The dependent variable is compliance. Data were collected using a questionnaire, then data were analyzed using the rho spearment test with a significance level of $\alpha \leq 0.05$.

The results showed that most of the respondents before the intervention had disobedience as many as 25 respondents (65.8%), after the intervention had obedience as many as 28 respondents (73.7%), the statistical test in the study between the variables of knowledge with compliance using a spearment rho test with a <0.05 obtained p = 0,000 where H1 was accepted and H0 was rejected, which means that there is a relationship between Lung TB Patients Knowledge and Compliance with Taking Anti-Tuberculosis Medication in the Isolation Room at Mokoyurli General Hospital, Kab. Buol, a statistical test in the study between attitude variables with adherence using the rho spearment test with a <0.05 obtained p = 0,000 where H1 was accepted and H0 was rejected, which means that there is a relationship between the attitude of pulmonary TB patients with adherence to taking anti-tuberculosis drugs in the Isolation Room of the General Hospital Mokoyurli District. Buol

There is a relationship of knowledge and attitudes of pulmonary tuberculosis patients with adherence to taking anti-tuberculosis drugs in the Isolation Room at Mokoyurli Public Hospital, Buol

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## Introduction

Pulmonary tuberculosis is a direct infectious disease caused by the germ of Tuberculosis (Mycobacterium Tuberculosis). Most Tuberculosis germs attack the lungs, but can also affect other organs. These rod-shaped bacteria have a special property that is resistant to acid in staining, therefore it is also called Acid Resistant Basil (BTA). Tuberculosis (TB) is a disease with a high risk of transmission. One of the determinants of the successful management of tuberculosis therapy is patient compliance with therapy. Non-compliance with treatment will cause failure and recurrence, resulting in resistance and continuous transmission of disease. This can increase the risk of morbidity, mortality and drug resistance both in patients and in the wider community. (Sari, 2016)

World Health Organization (WHO) in 2017 concluded that there are 22 countries with a category of high burden on TB (high Burden of TBC Number). A total of 8.9 million TB patients with the proportion of 80% in 22 developing countries with the death of 3 million people per year and 1 person can be infected with TB every second. Indonesia is now ranked fifth in the world with the highest TB burden in the world (Sari, 2016). Based on the 2017 WHO report there are an estimated 1,020,000 cases in Indonesia, but only 420,000 cases have been reported to the Ministry of Health. 2018 report d Indonesia TB is a contagious disease that causes many deaths in Indonesia. In 2016, there were 274 deaths per day in Indonesia. In the same year, TB cases reached 1,020,000 people. That number makes Indonesia ranked second most tuberculosis cases in the world after India (Erina, 2018). South Sulawesi TB in 2015 reached 614 cases. Results of a preliminary study in December 2018 found an average of TB patients per month in the RSU Mokoyurli General Hospital. Buol as many as 45 patients. The results of interviews of 10 patients get OAT found 8 of them had dropped out of the drug because of discomfort after taking medication, then did not return to taking medication and did not understand related to therapy that caused not to continue treatment so it was not in accordance with therapeutic standards, 2 patients continued until it was finished accordingly the doctor instructed. In patients who are treated outside the hospital and those who do not comply with the standards, namely the absence of a supervisor to take medication, the drug is taken when there are complaints, the patient stops taking the drug because the drug reaction is uncomfortable, the patient is sick for more than 6 months.

Tuberculosis is an infection caused by Mycobacterium tuberculosis which can attack various organs of the body starting from the lungs and organs outside the skin, bones, joints, brain membranes, intestines and kidneys which are often referred to as extrapulmonary tuberculosis (Chandra, 2012). Signs and symptoms of tuberculosis are Fever, Malaise, Anorexia, Weight loss, Cough there or not (develops slowly for weeks, - weeks to months), Increased respiratory frequency, Expansion in the affected area, bad breath sounds and rhonchi rude, deaf at percussion. The bacteria spread through the airway to the alveoli and then multiply and look piled up. The development of

Mycobacterium tuberculosis can also reach other areas of the lung (upper lobe). Basil also spreads through the lymphatic system and bloodstream to other parts of the body (kidneys, bones and cerebral cortex) and other areas of the lung (upper lobes). Furthermore, the immune system responds by carrying out inflammatory reactions. Lack of community knowledge about the early symptoms of pulmonary TB and the patient's screening system, the lack of openness of the community about TB disease because it is considered a hereditary disease and people are reluctant to check themselves out of shame and can cause TB treatment to be less effective and the patient is not adherent to treatment and impact on TB disease which is getting worse and death (Megawati, 2018).
The consequences of long-term non-compliance with medical treatment are deteriorating health and increasing costs of care. Disobedience of pulmonary TB sufferers causes low cure rates, high mortality rates and increased recurrence and more fatal is the occurrence of germ resistance to several anti-tuberculosis drugs or multi drug resistance, so that pulmonary tuberculosis is very difficult to cure.

The solution to preventative measures that can be done by treating patients with Pulmonary Tuberculosis routinely according to the treatment schedule, when treated at home patients must be placed in a room with all the equipment and the floor is cleaned with a strong disinfectant. In addition, efforts are needed to improve nutritional status in patients and adequate rest periods. Increased endurance of sufferers must be maintained because they are vulnerable to disease. Difficult to eradicate this disease because in its eradication it is not only a matter of bacteria or drugs, but also complements the social, cultural, economic, educational level, patient and family knowledge, and the surrounding community (Wahyudi, 2006). To overcome this problem, family participation is needed, where the family is the first unit in the community. If one family member is affected by Pulmonary Tuberculosis, it will affect other family members. Based on the background on the previous page, the researcher intends to conduct a study entitled "Analysis of Knowledge and Attitudes of Lung TB Patients with Compliance with Taking Anti-Tuberculosis Medication in Isolation Room at Mokoyurli Public Hospital, Kab. Buol ".

## Method

The design used in this study is Cross Sectional. The population is all patients with pulmonary TB. The sample size was 41 respondents using purposive sampling technique. Independent research variables are knowledge and attitudes. The dependent variable is compliance. Data were collected using a questionnaire, then data were analyzed using the rho spearment test with a significance level of $\alpha \leq 0.05$.

## Results

The research results obtained data distribution of research variables, namely:

Table 1. Frequency Distribution of Respondents based on knowledge in the Isolation Room at Mokoyurli Public Hospital, Kab. Buol on 24 June-24 July 2019 (n = 41)

| No | Knowledge | Frequency | Percentage |
|---|---|---|---|
| 1 | Less | 10 | 24,4 |
| 2 | Enough | 24 | 58,5 |
| 3 | Good | 7 | 17,1 |
| | **Total** | **41** | **100** |

The results showed that the majority of respondents before the intervention had disobedience as many as 25 respondents (65.8%).

Table 2. Frequency Distribution of Respondents based on attitudes in Isolation Room at Mokoyurli Public Hospital, Kab. Buol on 24 June-24 July 2019 (n = 41)

| No | Attitude | Frequency | Percentage |
|---|---|---|---|
| 1 | Less | 8 | 19,5 |
| 2 | Enough | 27 | 65,9 |
| 3 | Good | 6 | 14,6 |
| | **Total** | **41** | **100** |

The results showed that most of the respondents after the intervention had obedience as many as 28 respondents (73.7%).

Table 3. Frequency Distribution of Respondents based on Compliance in the Isolation Room at Mokoyurli General Hospital, Kab. Buol on 24 June-24 July 2019 (n = 41)

| No | Compliance | Frequency | Percentage |
|---|---|---|---|
| 1 | Non-compliance | 10 | 24,4 |
| 2 | Comply | 31 | 75,6 |
| **Total** | | **41** | **100** |

The results showed that most of the respondents after the intervention had obedience as many as 28 respondents (73.7%).

Table 4. Test Statistics

**Correlations**

| | | | Pengetahuan | Sikap | Kepatuhan |
|---|---|---|---|---|---|
| Spearman's rho | Pengetahuan | Correlation Coefficient | 1,000 | ,785** | ,565** |
| | | Sig. (2-tailed) | . | ,000 | ,000 |
| | | N | 41 | 41 | 41 |
| | Sikap | Correlation Coefficient | ,785** | 1,000 | ,643** |
| | | Sig. (2-tailed) | ,000 | . | ,000 |
| | | N | 41 | 41 | 41 |
| | Kepatuhan | Correlation Coefficient | ,565** | ,643** | 1,000 |
| | | Sig. (2-tailed) | ,000 | ,000 | . |
| | | N | 41 | 41 | 41 |

**. Correlation is significant at the 0.01 level (2-tailed).

Statistical test in the study between knowledge variables with adherence using the rho spearment test with a <0.05 obtained p = 0,000 where H1 was accepted and H0 was rejected, which means that there is a relationship between the knowledge of pulmonary TB patients with adherence to taking anti-tuberculosis drugs in the Isolation Room at Mokoyurli Hospital, Kab . Buol

Statistical test in the study between attitude variables with adherence using rho spearment test with a <0.05 obtained p = 0,000 where H1 was accepted and H0 was rejected, which means that there is a relationship between the attitude of pulmonary TB sufferers with adherence to taking anti-tuberculosis drugs in the Isolation Room at Mokoyurli General Hospital, Kab . Buol

## Discussion

Statistical test in the study between knowledge variables with adherence using the rho spearment test with a <0.05 obtained p = 0,000 where H1 was accepted and H0 was rejected, which means that there is a relationship between the knowledge of pulmonary TB patients with adherence to taking anti-tuberculosis drugs in the Isolation Room at Mokoyurli Hospital, Kab . Buol Statistical test in the study between attitude variables with adherence using rho spearment test with a <0.05 obtained p = 0,000 where H1 was accepted and H0 was rejected, which means that there is a relationship between the attitude of pulmonary TB sufferers with adherence to taking anti-tuberculosis drugs in the Isolation Room at Mokoyurli General Hospital, Kab . Buol The results showed that almost half of respondents had compliant compliance with sufficient knowledge of 21 respondents (51.2%). The results showed that nearly half of respondents had obedient adherence with sufficient attitudes of 24 respondents (58.5%). The results showed that almost half of respondents had sufficient attitudes with sufficient knowledge of 22 respondents (53.7%).

The consequences of long-term non-compliance with medical treatment are deteriorating health and increasing costs of care. Disobedience of pulmonary TB sufferers causes low cure rates, high mortality rates and increased recurrence and more fatal is the occurrence of germ resistance to several anti-tuberculosis drugs or multi drug resistance, so

that pulmonary tuberculosis is very difficult to cure. The solution to preventative measures that can be done by treating patients with Pulmonary Tuberculosis routinely according to the treatment schedule, when treated at home patients must be placed in a room with all the equipment and the floor is cleaned with a strong disinfectant. In addition, efforts are needed to improve nutritional status in patients and adequate rest periods. Increased endurance of sufferers must be maintained because they are vulnerable to disease. Difficult to eradicate this disease because in its eradication it is not only a matter of bacteria or drugs, but also complements the social, cultural, economic, educational level, patient and family knowledge, and the surrounding community (Wahyudi, 2006).

Based on the results of the study stated that there is a relationship between the knowledge of pulmonary TB patients with adherence to taking anti-tuberculosis drugs in the Isolation Room at Mokoyurli General Hospital, Kab. Buol and there is also a relationship between the attitude of pulmonary TB patients with adherence to taking anti-tuberculosis drugs in the Isolation Room at Mokoyurli General Hospital, Kab. Buol Respondents have an attitude that clearly shows the connotation of the suitability of a reaction to a particular stimulus which in daily life is an emotional reaction to a social stimulus. Attitude is not yet an action or activity, but it is a predisposition to the action of a behavior. That attitude is still a closed reaction, not an open reaction or open behavior. Attitude is a readiness to react to objects in a particular environment as an appreciation of objects. Respondents have good compliance with compliance as a function of beliefs about health, perceived threats, perception, immunity, consideration of obstacles or losses and gains. Someone will tend to obey if the threat is felt so serious, while someone will tend to ignore his health if the belief in the importance of health that must be maintained is low.

## Conclusion

1. The results of the study found that the majority of respondents before the intervention had disobedience as many as 25 respondents (65.8%).
2. The results of the study found that most of the respondents after the intervention had obedient compliance with 28 respondents (73.7%).
3. The results of the study found that most of the respondents after the intervention had obedient compliance with 28 respondents (73.7%).
4. Statistical test in the study between knowledge variables with adherence using the rho spearment test with a <0.05 obtained p = 0,000 where H1 was accepted and H0 was rejected, which means that there is a relationship between the knowledge of pulmonary TB patients with adherence to taking anti-tuberculosis drugs in the Isolation Room of the General Hospital Mokoyurli District. Buol Statistical test in the study between attitude variables with adherence using rho spearment test with a <0.05 obtained p = 0,000 where H1 was accepted and H0 was rejected, which means that there is a relationship between the attitude of pulmonary TB sufferers with adherence to taking anti-tuberculosis drugs in the Isolation Room at Mokoyurli General Hospital, Kab . Buol

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